

# Cosmic DAP D62/6130F

Diallyl Phthalate  
Cosmic Plastics, Inc.

Message:

DESCRIPTION  
Cosmic D62 / 6130F is a long glass fiber filled, flame retardant, general purpose diallyl ortho phthalate molding compound which is supplied in a flake form. It can be easily molded in compression or transfer equipment and can be readily preformed for ease in handling. It has passed NASA outgassing tests.

FEATURES  
D62 / 6130F is particularly suited to applications requiring resistance to elevated temperatures and high humidity. It has a high impact strength, excellent compressive and flexural strength, and very good electrical properties.

APPLICATIONS  
Structural parts, housings, terminals, insulators and other applications requiring flame resistance or strength.

General Information		
Filler / Reinforcement	Long Glass Fiber	
Features	Flame Retardant	
	General Purpose	
	Good Compressive Strength	
	Good Electrical Properties	
	High Heat Resistance	
	High Impact Resistance	
	Humidity Resistant	
	Orthophthalic	
Uses	General Purpose	
	Housings	
	Insulation	
	Structural Parts	
Agency Ratings	ASTM D 5948, Type GDI-30F	
	MIL M-14, Type GDI-30F	
Forms	Flakes	
Processing Method	Compression Molding	
	Resin Transfer Molding	
Physical	Nominal Value	Unit
Specific Gravity	1.82	g/cm <sup>3</sup>
Bulk Factor	6.0	
Molding Shrinkage - Flow	0.10 to 0.40	%
Dimensional Stability	< 0.010	%
Water Absorption <sup>1</sup> (Equilibrium, 50°C)	0.30	%

Mechanical	Nominal Value	Unit	
Tensile Strength	41.4 to 68.9	MPa	
Flexural Strength	89.6 to 117	MPa	
Compressive Strength	165 to 207	MPa	
Impact	Nominal Value	Unit	
Notched Izod Impact	160 to 320	J/m	
Thermal	Nominal Value	Unit	
CLTE - Flow (-40 to 100°C)	2.4E-5	cm/cm/°C	
Heat Distortion	260	°C	
Dielectric Breakdown			
Dry	62000	V	
Wet	60000	V	
Water Extract Conductivity	30.0	μS/cm	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity			
-- <sup>2</sup>	2.6E+10	ohms	
-- <sup>3</sup>	> 1.0E+16	ohms	
Volume Resistivity			
-- <sup>4</sup>	2.0E+10	ohms · cm	
-- <sup>5</sup>	> 1.0E+16	ohms · cm	
Dielectric Strength <sup>6</sup>			
Dry	16	kV/mm	
Wet	14	kV/mm	
Dielectric Constant			
1 kHz <sup>7</sup>	4.40		
1 kHz <sup>8</sup>	4.20		
1 MHz <sup>9</sup>	4.20		
1 MHz <sup>10</sup>	4.00		
Dissipation Factor			
1 kHz <sup>11</sup>	9.0E-3		
1 kHz <sup>12</sup>	6.0E-3		
1 MHz <sup>13</sup>	0.016		
1 MHz <sup>14</sup>	0.014		
Arc Resistance	180	sec	
Flammability	Nominal Value	Unit	Test Method
Flame Rating (3.18 mm)	V-0		UL 94
Injection	Nominal Value	Unit	
Processing (Melt) Temp	135 to 190	°C	
Injection Pressure	3.45 to 55.2	MPa	
NOTE			
1.	48 hrs		
2.	30 days @ 100% RH @ 70°C		

3.	As Is
4.	30 days @ 100% RH @ 70°C
5.	As Is
6.	Method B (Step-by-Step)
7.	Wet
8.	Dry
9.	Wet
10.	Dry
11.	Wet
12.	Dry
13.	Wet
14.	Dry

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